### §§ 205.511-205.599

### §§ 205.511-205.599 [Reserved]

### Subpart G—Administrative

THE NATIONAL LIST OF ALLOWED AND PROHIBITED SUBSTANCES

# § 205.600 Evaluation criteria for allowed and prohibited substances, methods, and ingredients.

The following criteria will be utilized in the evaluation of substances or ingredients for the organic production and handling sections of the National List:

- (a) Synthetic and nonsynthetic substances considered for inclusion on or deletion from the National List of allowed and prohibited substances will be evaluated using the criteria specified in the Act (7 U.S.C. 6517 and 6518).
- (b) In addition to the criteria set forth in the Act, any synthetic substance used as a processing aid or adjuvant will be evaluated against the following criteria:
- (1) The substance cannot be produced from a natural source and there are no organic substitutes:
- (2) The substance's manufacture, use, and disposal do not have adverse effects on the environment and are done in a manner compatible with organic handling;
- (3) The nutritional quality of the food is maintained when the substance is used, and the substance, itself, or its breakdown products do not have an adverse effect on human health as defined by applicable Federal regulations;
- (4) The substance's primary use is not as a preservative or to recreate or improve flavors, colors, textures, or nutritive value lost during processing, except where the replacement of nutrients is required by law:
- (5) The substance is listed as generally recognized as safe (GRAS) by Food and Drug Administration (FDA) when used in accordance with FDA's good manufacturing practices (GMP) and contains no residues of heavy metals or other contaminants in excess of tolerances set by FDA; and
- (6) The substance is essential for the handling of organically produced agricultural products.
- (c) Nonsynthetics used in organic processing will be evaluated using the

criteria specified in the Act (7 U.S.C. 6517 and 6518).

## § 205.601 Synthetic substances allowed for use in organic crop production.

In accordance with restrictions specified in this section, the following synthetic substances may be used in organic crop production: *Provided*, That, use of such substances do not contribute to contamination of crops, soil, or water. Substances allowed by this section, except disinfectants and sanitizers in paragraph (a) and those substances in paragraphs (c), (j), (k), and (l) of this section, may only be used when the provisions set forth in §205.206(a) through (d) prove insufficient to prevent or control the target pest.

- (a) As algicide, disinfectants, and sanitizer, including irrigation system cleaning systems.
  - (1) Alcohols.
  - (i) Ethanol.
  - (ii) Isopropanol.
- (2) Chlorine materials—Except, That, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.
  - (i) Calcium hypochlorite.
  - (ii) Chlorine dioxide.
  - (iii) Sodium hypochlorite.
- (3) Copper sulfate—for use as an algicide in aquatic rice systems, is limited to one application per field during any 24-month period. Application rates are limited to those which do not increase baseline soil test values for copper over a timeframe agreed upon by the producer and accredited certifying agent.
  - (4) Hydrogen peroxide.
- (5) Ozone gas—for use as an irrigation system cleaner only.
- (6) Peracetic acid—for use in disinfecting equipment, seed, and asexually propagated planting material.
- (7) Soap-based algicide/demossers.
- (b) As herbicides, weed barriers, as applicable.
- (1) Herbicides, soap-based—for use in farmstead maintenance (roadways, ditches, right of ways, building perimeters) and ornamental crops.
- (2) Mulches.

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- (i) Newspaper or other recycled paper, without glossy or colored inks.
- (ii) Plastic mulch and covers (petroleum-based other than polyvinyl chloride (PVC)).
- (c) As compost feedstocks—Newspapers or other recycled paper, without glossy or colored inks.
- (d) As animal repellents—Soaps, ammonium—for use as a large animal repellant only, no contact with soil or edible portion of crop.
- (e) As insecticides (including acaricides or mite control).
- (1) Ammonium carbonate—for use as bait in insect traps only, no direct contact with crop or soil.
- (2) Boric acid—structural pest control, no direct contact with organic food or crops.
- (3) Copper sulfate—for use as tadpole shrimp control in aquatic rice production, is limited to one application per field during any 24-month period. Application rates are limited to levels which do not increase baseline soil test values for copper over a timeframe agreed upon by the producer and accredited certifying agent.
  - (4) Elemental sulfur.
- (5) Lime sulfur—including calcium polysulfide.
- (6) Oils, horticultural—narrow range oils as dormant, suffocating, and summer oils.
  - (7) Soaps, insecticidal.
  - (8) Sticky traps/barriers.
- (f) As insect management. Pheromones.
  - (g) As rodenticides.
- (1) Sulfur dioxide—underground rodent control only (smoke bombs).
  - (2) Vitamin  $D_3$ .
- (h) As slug or snail bait. Ferric phosphate (CAS # 10045-86-0).
  - (i) As plant disease control.
- (1) Coppers, fixed—copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance, *Provided*, That, copper-based materials must be used in a manner that minimizes accumulation in the soil and shall not be used as herbicides.
- (2) Copper sulfate—Substance must be used in a manner that minimizes accumulation of copper in the soil.
  - (3) Hydrated lime.
  - (4) Hydrogen peroxide.
  - (5) Lime sulfur.

- (6) Oils, horticultural, narrow range oils as dormant, suffocating, and summer oils.
- (7) Peracetic acid—for use to control fire blight bacteria.
  - (8) Potassium bicarbonate.
  - (9) Elemental sulfur.
- (10) Streptomycin, for fire blight control in apples and pears only.
- (11) Tetracycline (oxytetracycline calcium complex), for fire blight control only.
  - (j) As plant or soil amendments.
- (1) Aquatic plant extracts (other than hydrolyzed)—Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction.
  - (2) Elemental sulfur.
- (3) Humic acids—naturally occurring deposits, water and alkali extracts only.
- (4) Lignin sulfonate—chelating agent, dust suppressant, floatation agent.
- (5) Magnesium sulfate—allowed with a documented soil deficiency.
- (6) Micronutrients—not to be used as a defoliant, herbicide, or desiccant. Those made from nitrates or chlorides are not allowed. Soil deficiency must be documented by testing.
  - (i) Soluble boron products.
- (ii) Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt.
- (7) Liquid fish products—can be pH adjusted with sulfuric, citric or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.
  - (8) Vitamins,  $B_1$ , C, and E.
- (k) As plant growth regulators. Ethylene gas—for regulation of pineapple flowering.
- (1) As floating agents in postharvest handling.
- (1) Lignin sulfonate.
- (2) Sodium silicate—for tree fruit and fiber processing.
- (m) As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

### § 205.602

- (1) EPA List 4—Inerts of Minimal Concern.
- (2) EPA List 3—Inerts of Unknown Toxicity allowed:
- (i) Glycerine Oleate (Glycerol monooleate) (CAS #s 37220–82–9)—for use only until December 31, 2006.
- (ii) Inerts used in passive pheromone dispensers.
- (n) Seed preparations. Hydrogen chloride (CAS # 7647-01-0)—for delinting cotton seed for planting.
  - (o)-(z) [Reserved]

[65 FR 80637, Dec. 21, 2000, as amended at 68 FR 61992, Oct. 31, 2003; 71 FR 53302 Sept. 11, 2006]

#### § 205.602 Nonsynthetic substances prohibited for use in organic crop production.

The following nonsynthetic substances may not be used in organic crop production:

- (a) Ash from manure burning.
- (b) Arsenic.
- (c) Calcium chloride, brine process is natural and prohibited for use except as a foliar spray to treat a physiological disorder associated with calcium uptake.
  - (d) Lead salts.
- (e) Potassium chloride—unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil.
  - (f) Sodium fluoaluminate (mined).
- (g) Sodium nitrate—unless use is restricted to no more than 20% of the crop's total nitrogen requirement; use in spirulina production is unrestricted until October 21, 2005.
  - (h) Strychnine.
  - (i) Tobacco dust (nicotine sulfate).
  - (j)-(z) [Reserved]

[68 FR 61992, Oct. 31, 2003]

## § 205.603 Synthetic substances allowed for use in organic livestock production.

In accordance with restrictions specified in this section the following synthetic substances may be used in organic livestock production:

- (a) As disinfectants, sanitizer, and medical treatments as applicable.
  - (1) Alcohols.
- (i) Ethanol—disinfectant and sanitizer only, prohibited as a feed additive.

- (ii) Isopropanol—disinfectant only.
- (2) Aspirin—approved for health care use to reduce inflammation.
  - (3) Biologics—Vaccines.
- (4) Chlorhexidine—Allowed for surgical procedures conducted by a veterinarian. Allowed for use as a teat dip when alternative germicidal agents and/or physical barriers have lost their effectiveness.
- (5) Chlorine materials—disinfecting and sanitizing facilities and equipment. Residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.
  - (i) Calcium hypochlorite.
  - (ii) Chlorine dioxide.
  - (iii) Sodium hypochlorite.
  - (6) Electrolytes—without antibiotics.
  - (7) Glucose.
- (8) Glycerine—Allowed as a livestock teat dip, must be produced through the hydrolysis of fats or oils.
  - (9) Hydrogen peroxide.
  - (10) Iodine.
  - (11) Magnesium sulfate.
- (12) Oxytocin—use in postparturition therapeutic applications.
- (13) Parasiticides. Ivermectin—prohibited in slaughter stock, allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from a treated animal cannot be labeled as provided for in subpart D of this part for 90 days following treatment. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period of breeding stock.
- (14) Phosphoric acid—allowed as an equipment cleaner, *Provided*, That, no direct contact with organically managed livestock or land occurs.
- (b) As topical treatment, external parasiticide or local anesthetic as applicable.
  - (1) Copper sulfate.
  - (2) Iodine.
- (3) Lidocaine—as a local anesthetic. Use requires a withdrawal period of 90 days after administering to livestock intended for slaughter and 7 days after administering to dairy animals.